(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 5 August 2004 (05.08.2004)

PCT

(10) International Publication Number WO 2004/066163 A1

(51) International Patent Classification7:

G06F 17/30

(21) International Application Number:

PCT/GB2004/000310

(22) International Filing Date: 23 January 2004 (23.01.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0301721.7

24 January 2003 (24.01.2003) GR

0309460.4

25 April 2003 (25.04.2003)

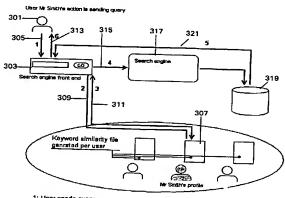
- (71) Applicant (for all designated States except US): BRITISH TELECOMMUNICATIONS PUBLIC COMPANY [GB/GB]; 81 Newgate Street, London, Greater London EC1A 7AJ (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DUCATEL, Gery, Michel [FR/GB]; 40 Cecil Road, Ipswich, Suffolk IP1

3NW (GB). AZVINE, Behnam [GB/GB]; 6 Dodson Vale, Ipswich, Suffolk IP5 2GT (GB).

- (74) Agent: GEFFEN, Nigel, Paul; Bt Group Legal, Intellectual Property Department, PP: C5A BT Centre, 81 Newgate Street, London, Greater London EC1A 7AJ (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: SEARCHING APPARATUS AND METHODS



- 2: User 'related keyword' profile is read and edditional Boolean keywords are extracted.

 3: The user is given the Boolean terms to expand his query.

 4: The expanded query can go to a search engine (one that can handle Boolean querying).

 5: The set of result is extracted from the data repository.

 6: The Graphical User Interface displays the results back to the user.

method.

(57) Abstract: An apparatus and method are provided for improving database searching, the method comprising the steps of: receiving a search query comprising one or more search keywords from a user; accessing a user profile means arranged to provide data indicative of relatedness criteria between keywords from a set of documents, and identifying from said user profile means, for the or each search keyword, potentially-related keywords according to predetermined criteria; providing said potentially-related keywords to the user, receiving information from the user confirming that any potentially-related keywords are considered to be related keywords; in the event that any potentially-related keywords are confirmed by the user to be related keywords, incorporating such potentially-related keywords as keywords in an improved search query; and submitting the improved search query to a search engine. Also provided are an apparatus and method for creating and maintaining user profiles for use in the above searching apparatus and

WO 2004/066163 A1



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,

ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.